



# Microbial Techniques for Soil Improvement

- **Use and function of Microbes in Agriculture and Organic Wastes Treatments**

**Lecture by Assoc. Prof. T. Ohwada  
(Obihiro Univ. of Agriculture)**

**. June 23 morning at Obihiro University**

# Extension Activities in Obihiro

- Activities in Agricultural Technique Center of Obihiro City
- Project of high quality compost production

on June 24, morning

# Control of Soil Microbes

- By Dr. Daigo Aiuchi (OUAVM)
- June 25

# Study Tour in Hokkaido

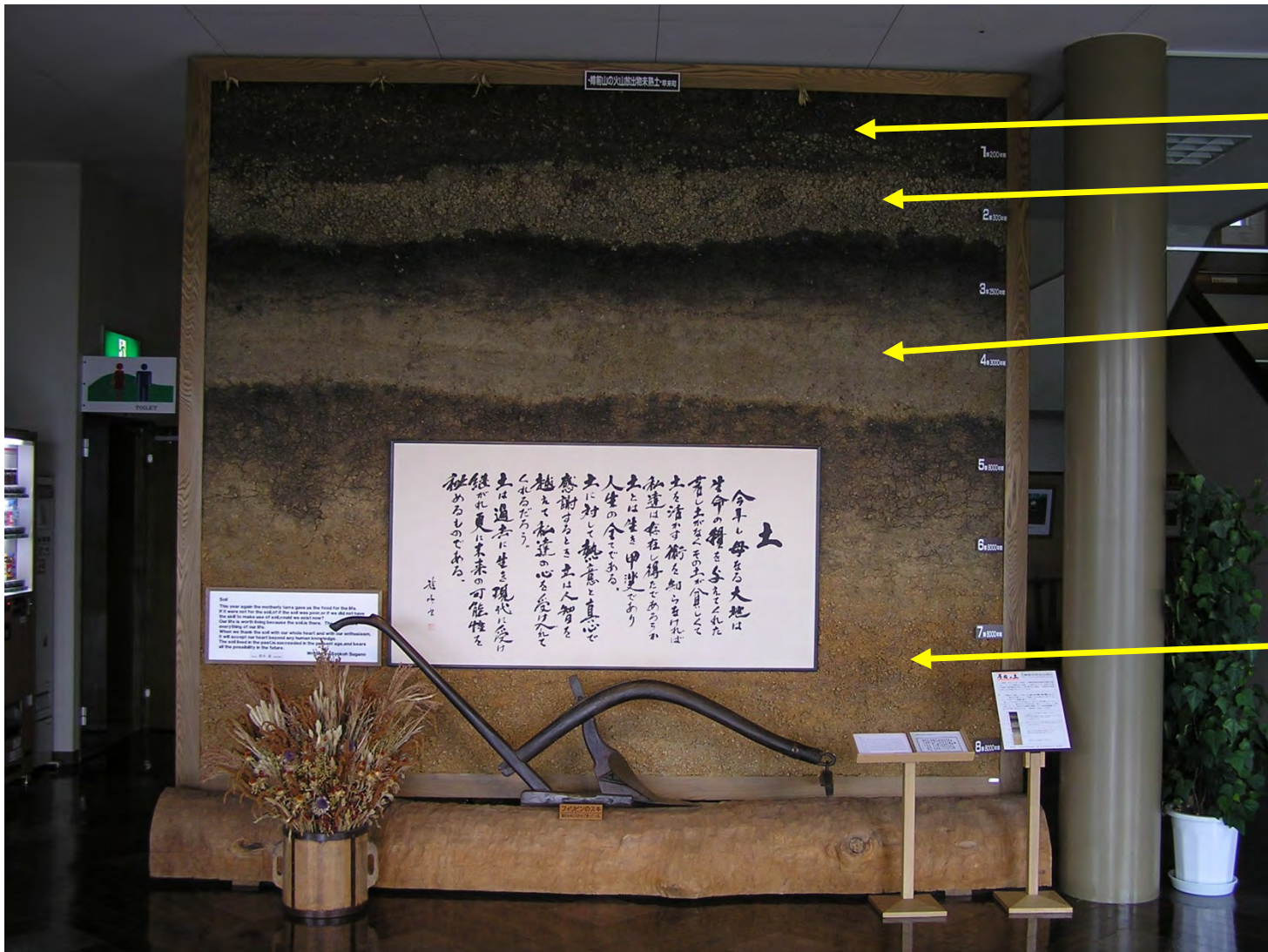
- June 26 – 27
- Furano (Soil Museum)
- Biei (Field Survey)

# Study and survey visits

- Soil Museum in Kami-Furano
- Soil Profile Investigation in Biei Terrace

June 26

by Dr. Y.Yokoi and Mr. K. Ohbuchi



a 1739

b 1667

c

BC1000

d

BC7000

Soil Museum in Kami-Furano A large soil monolith showing 4 big eruptions



# Field survey in Biei





1

# Soil diagnosis for environment- friendly agriculture in Japan



2

Development and Extension of Agriculture Technology in  
Hokkaido

Techniques for Soil Diagnosis and Environmental  
Conservation

by Hokkaido Prefectural Tokachi Ag. Experimental Station  
July 1 - 2



# Extension Activities in Taisho Village

- Soil Diagnosis Project in Taisho Area, Obihiro  
on July 3

# Aquatic Quality Analysis

- Collection and Analysis of stream waters in dairy area and non-dairy area
- Analysis of DO, BOD, SS

By Drs. H. Saba, A. Nakanishi, A. Yoshikane  
(Hokkai Suiko Consultant Co. Ltd)

at Hokkai Suiko Consultant. Co.

July4, July 7

# Aquatic Quality Analysis





## Aquatic Quality (Lecture)

- Land utilization of Agricultural areas and water quality conservation. Lecture by Assist. Prof. Muneoka (Obihiro University) July 7 (morning)

# Visit Excellent Farmers in Obihiro

- Farm Management for Upland Crops in Tokachi

Hosono Farm, in Aikoku, Obihiro

July 8



# Study Tour to

# Tsukuba & Tokyo

- July 8-14



# Study Tour in Tsukuba & Tokyo

- July 8-11 : Obihiro – Tsukuba (Stay in Tsukuba)
- July 11: Tsukuba – Tokyo
- July 14: Visit Fujihira Company in Tokyo
- return to Obihiro



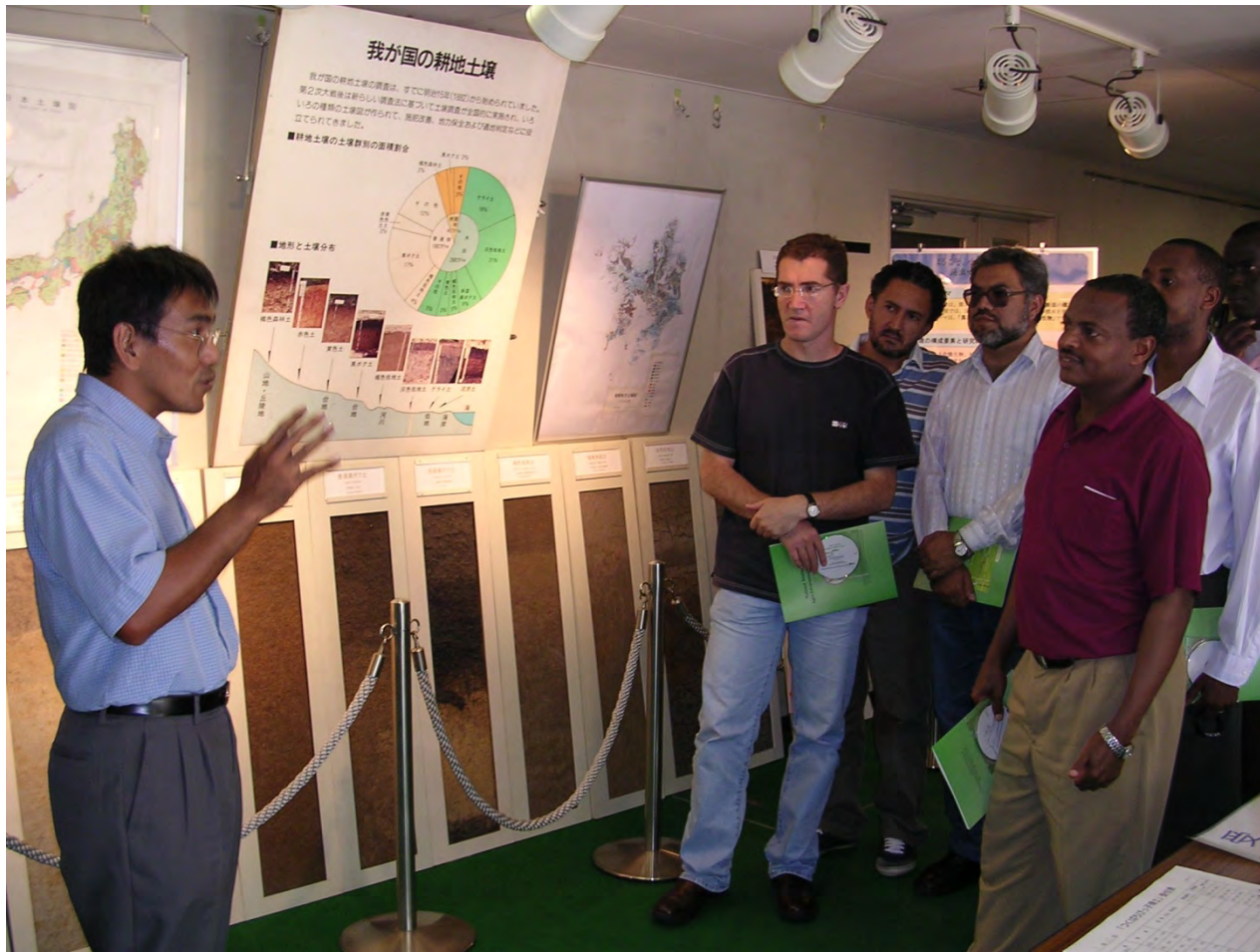
1

# Characteristics and problems of tropical soils

- Agriculture and Soil in South East Asia  
by Dr. Kohyama (National Institute for  
Agro-Environmental Science)

During the Study Tour in Tsukuba,  
July 9 (whole day)

# Soil Monolith Museum in Tsukuba





# Big soil monolith





1

# Digital Soil Map

by Dr. Y. Takata (National Institute for Agro-  
Environmental Science)

During the Study Tour in Tsukuba,  
July 10 (morning)



1

# Characteristics and problems of tropical soils

- Agriculture and Soil in South America  
by Dr. Shiozaki (Former JICA Expert)

During the Study Tour in Tsukuba,  
July 10 (afternoon)

# Chemical Changes of Soil Organic matters from Temperate zoon to Tropical zone

- Dr. YOSHIDA Masao
- Prof. (emer.) Ibaraki University
- Former JICA expert
- July 11 (Fri.)





# Developments in Soil Diagnosis Instruments

- Visit Fujihira Co. Ltd in Tokyo
- July 14 (morning)



# Fujihira Company, Tokyo



# Guidance and Discussion on Interim Report ②

- July 15 (morning)
- By the course leader, K. Tsutsuki

# Visit Composting Facility in Sarabetsu Village

By Mr. K. Nakai (Sarabetsu Agr. Co-op)

July 16 (morning)



3

# Composting techniques

- Effective Use of Agricultural Organic Wastes
- by Prof. K. Tsutsuki (Obihiro University of Agriculture and Veterinary

July 16 at OBIC





# Environmental Conservation Agriculture in Japan

- July 17
- Researchers, Dr. MORI, Dr.TAKENAKA,  
National Agricultural Research Center  
for Hokkaido Region

# School Visit , July 18





# Interim Report Preparation Rehearsal and the final discussion

- 22. July (morning)
- By the course leader, K. Tsutsuki

# Historical transition of Fertilizers

- By Dr. S. Kiso  
(Hokuren Fertilizer Co. Ltd.)
- July 23, morning

# Visit Fertilizer Company

Fertilizer production in the age of  
Environmental Conservation

Hokuren Fertilizer Company  
in Memuro town

July 23 (afternoon)

# Evaluation of this course

- By the JICA staff
- July 24 (morning)

# Interim Report Presentation

July 24 afternoon



Mr. Berisha from Kosova

# Interim Report Presentation



Mr. Marco from Bolivia

# Interim Report Part 1

- Review and Achievement of the Training Program (maximum 3 pages)
- \* this part is for review the whole training program to share with your colleagues the contents of the training program.



# Interim Report Part 2

- Action Plan (4-6pages)
- This part is to share specific techniques/ experience which you have strong interest and what you can do when you go back to your home country.
- Chose specific technique/experience which you will promote or disseminate in your organization and your area.

# Include also in Interim Report

- What will you do after 5-10 years when you have a more responsible position, in order to improve the soil productivity and to develop sustainable agriculture in your country?

# Final Report

- In 6 months after you go back to your country, you should submit a final report showing what you carried out to extend your achievements and experience during this course.



# Closing Ceremony



# Farewell party



# Introduction of Course Leader

- Born in Okazaki, Central Japan in Dec. 1951.
- Until high school, I stayed in Okazaki
- Studied agricultural chemistry and soil science in Nagoya University. (BS:1970-74, MS: 1974-1976, Dr. Agr.: 1976-1979)
- Postdoctoral Fellowships (Nagoya University, IRRI Philippines, Hamburg University Germany) (1980-1984)



# Introduction of Course Leader

- Assistant Prof. in Nagoya Univ (1984-1991)
- Assoc. Prof. in Obihiro Univ. of Agr. &V.Med. (1991-2002)
- Prof. of Soil Science in Obihiro Univ. of Agriculture (2002-2014)

# Introduction of Course Leader (2)

Major Research field:

- Composition and characteristics of soil organic matter in soils.
- Organic matter in Peat soils
- Organic matter in volcanic ash soils
- Dynamics of organic matter (compost, slurry, green manure) in agricultural soils
- Organic matter dynamics in wetland water

# Introduction of Course Leader (3)

Major Research Field (continued):

- Tropical degraded soils.
- Edible soils in Hokkaido
- Waste management in agricultural soils
- Use of Green Manure in Crop Field
- Effect of fulvic acid in agriculture
- New biogas fermentation method

# My homepage

- I have made my own homepage last year.
- Files of my lectures given in this course and in other courses are also uploaded.
- <http://kt-woodpecker.digi2.jp/lecfile.html>

You arrived Obihiro in such season





# Harvest season of wheat is the time you leave Obihiro, Japan

